PCV126

A PROFILING OF HYPERTENSION PATIENTS TREATED WITH CHLORTHALIDONE OR HYDROCHLOROTHIAZIDE

Asche C[1], Yang J[2], Yu S[2], Hagan M[2]
[1]*University of Illinois, Peoria, IL, USA,* [2]*Takeda Pharmaceuticals International, Inc., Deerfield, IL, USA*

OBJECTIVES: Chlorthalidone (CLD) and hydrochlorothiazide (HCTZ) are the two most widely used thiazide-type diuretics. This study compared patient characteristics for CLD and HCTZ. **METHODS:** Adult patients with a hypertension diagnosis (ICD-9 401-405) and ≥2 antihypertensive prescriptions, one of which is CLD or HCTZ, were identified in the MarketScan Databases (2003-2009). Patients switching from CLD to HCTZ, or vice versa, or taking both together were excluded from the study. Patients had continuous enrollment for ≥6 months prior to and after their first prescription of either study drug **RESULTS:** A total of 15,219 and 890,272 patients were identified for the CLD and HCTZ groups (female: 52.0% vs. 55.2%, mean age: 59.7 vs. 58.6 years). Notably different rates (CLD vs. HCTZ) were observed for prior medical conditions gout (3.4% vs. 2.4%) and chronic kidney disease (6.2% vs. 3.6%), with less pertinent differences for coronary heart disease (17.1% vs. 15.3%), congestive heart failure (11.0% vs. 10.0%), arrhythmia (12.5% vs. 11.2%), hyperlipidemia (46.7% vs. 44.0%) and diabetes (21.2% vs. 19.3%). The mean Charlson Comorbidity Index (CCI) scores for CLD group were 3.3 and 3.1 for HCTZ group. Higher proportions of CLD patients had previously used beta blockers (BB) (40.2% vs. 27.8%) and calcium channel blockers (CCB) (27.7% vs. 21.8%), a lower proportion had used angiotensin receptor blockers (ARB) (12.9% vs. 16.0%), and similar use was seen for angiotensin-converting enzyme inhibitors (ACEI) (25.9% vs 25.2%). CLD patients had higher rates of concurrent BB (33.9% vs. 23.3%) and CCB (24.3% vs. 17.8%) use. Slight differences in the rates of ARB (12.6% vs. 10.9%) and ACEI (22.3% vs. 21.0%) concurrent use were also observed. **CONCLUSIONS:** This research suggests similar patient profiles for CLD and HCTZ users with CLD users having a slightly more severe overall prior co-morbidity status and higher rates of prior and concurrent BB / CCB medication use.

PCV127

CONCOMITANT STATIN USE WITH EZETIMIBE OR COLESEVELAM FOR TREATMENT OF HYPERCHOLESTEROLEMIA

Ye X[1], Bays H[2], Schwab P[3]
[1]*Daiichi Sankyo, Parsippany, NJ, USA,* [2]*Louisville Metabolic and Atherosclerosis Research Center, Louisville, KY, USA,* [3]*Competitive Health Analytics, Louisville, KY, USA*

OBJECTIVES: Ezetimibe or colesevelam are often used for treating hypercholesterolemia when statin therapy is insufficient or not well tolerated. Our study objective was to examine prevalence of concomitant statin use and associated factors among hypercholesterolemia patients newly treated with ezetimibe or colesevelam and associated factors. **METHODS:** This analysis evaluated a large health plan's Commercial and Medicare Advantage claims data from January 1, 2008 to July 31, 2012. The first ezetimibe (excluding fixed combination therapy of ezetimibe/simvastatin) or colesevelam prescription fill date during this period was identified as the index date. Patients were assigned to either ezetimibe or colesevelam cohort based on the index drug and were required to have ≥2 consecutive prescriptions for the index drug and have at least six months and 12 months continuous enrollment before and after the index date, respectively. Prevalence of concomitant statin use was identified based on pharmacy claims. Patient demographics and clinical characterisitics were explored to examine the factors associated with concomitant statin use using multivariate logistic regression. **RESULTS:** A total of 679 colesevelam and 1439 ezetimibe patients were included in this study. The concomitant use of statins was 24% among colesevelam and 50% among ezetimibe patients, respectively. After adjustment for patient demographics and comorbidities, ezetimibe patients were 3.2 times more likely than colesevelam patients to have concomitant statin use (OR=3.168, 95% CI: 2.573, 3.900, P<0.001). Other significant factors associated with higher concomitant statin use include: male gender (OR=1.296, 95%: 1.079, 1.558, P=0.006), presence of diabetes mellitus (OR=1.262, 95% CI: 1.035, 1.539, P=0.021) and higher Charlson comorbidity score (OR=1.114, 95% CI: 1.046, 1.187, P<0.001). **CONCLUSIONS:** In this claims data analysis, statins were administered along with ezetimibe more frequently than administered with colesevelam, which should be taken into account when evaluating effectiveness of ezetimibe versus colesevelam in the real-world treatment of hypercholesterolemia.

PCV128

COLESEVELAM HCL OR EZETIMIBE FOR HYPERCHOLESTEROLEMIA: DIFFERENCES IN PATIENT CHARACTERISTICS FROM A HEALTH CARE DATABASE

Ye X[1], Bays H[2], Swindle JP[3]
[1]*Daiichi Sankyo, Parsippany, NJ, USA,* [2]*Louisville Metabolic and Atherosclerosis Research Center, Louisville, KY, USA,* [3]*OptumInsight, Eden Prairie, MN, USA*

OBJECTIVES: Colesevelam HCl is approved as both a cholesterol-lowering and anti-diabetes mellitus agent with pregnancy category B. Ezetimibe is approved as a cholesterol-lowering agent with pregnancy category C. This study examined demographic and clinical characteristics of hypercholesterolemic patients newly treated with colesevelam HCl versus ezetimibe. **METHODS:** This retrospective observational study utilized claims data from a large national health plan, and identified either colesevelam HCl or ezetimibe pharmacy claims between January 1, 2006 and March 31, 2011 as the index drug and the first fill date as the index date. Inclusion criteria included patients 18 years or older, diagnosis for hypercholesterolemia, and at least 6 months (baseline) and 12 months (follow-up) continuous enrollment before and after the index date, respectively. Patient demographic and clinical characteristics were identified from enrollment, medical and pharmacy claims data. Chi-square and t-tests were used to examine patient characteristic differences between two treatment cohorts. **RESULTS:** A total of 3,357 colesevelam HCl and 17,026 ezetimibe patients met inclusion criteria, and were included in this study. Mean age was 55 and 57 years for colesevelam HCl and ezetimibe patients, respectively. Compared to the ezetimibe cohort, colesevelam HCl patients had higher prevalence of type 2 diabetes mellitus diagnosis (25% vs. 20%, p<0.001), and a larger proportion were female (56% vs. 45%, p<0.001). Baseline statin use was more common among ezetimibe patients than colesevelam patients (55% vs. 37%, p<0.001). **CONCLUSIONS:** Compared to ezetimibe, colesevelam HCl was administered to a greater percent of patients with type 2 diabetes mellitus and women, which may be related to colesevelam HCl's approved use as an anti-diabetes mellitus drug, and its pregnancy category B status. The baseline statin use was less common among colesevelam HCI patients than ezetimibe patients. These differences should be taken into account when evaluating real-world effectiveness of the two therapies.

PCV129

DEMOGRAPHIC AND CLINICAL CHARACTERISTICS, AND TREATMENT OF CARDIOVASCULAR RISK FACTORS IN WORKING AGE PATIENTS WITH HIGH-RISK VASCULAR DISEASE: FINDINGS FROM A MULTI-EMPLOYER U.S. CLAIMS DATABASE

Zhao Z[1], Zhu Y[1], Fang Y[2], McCollam PL[3]
[1]*Eli Lilly and Company, Indianapolis, IN, USA,* [2]*PharmaNet/i3, Indianapolis, IN, USA,* [3]*Eli Lilly and Company, Inc., Indianapolis, IN, USA*

OBJECTIVES: To examine the demographic and clinical characteristics, and cardiovascular treatment in patients with high-risk vascular disease (HRVD). **METHODS:** A retrospective cohort study was conducted using a large employer-based US administrative claims database. This study identified patients aged 18 to 64 years who had HRVD (defined as cerebrovascular disease [CVD], coronary artery disease with diabetes [CADD], peripheral artery disease [PAD], or history of acute coronary syndrome [ACS] [≥30days through 365 days after discharge for ACS]) between October 1, 2008 and September 30, 2009, with minimum 12-month pre-index and 24-month post-index insurance eligibility. Data on patients' baseline demographic characteristics, comorbidities, and medication use were examined and compared across groups with and without polyvascular disease. **RESULTS:** A total of 516,863 HRVD patients were identified. Their average age was 55.2 years and 54.8% were male. Among the identified patients, 56.3% had hypertension, 53.2% had hypercholesterolemia, and 46.3% had diabetes. Patients were generally undertreated with statins (38.7% HRVD; range: 29.2% CVD to 65.5% ACS), antiplatelets (16.5% HRVD; range: 9.0% CVD to 59.5% ACS), beta-blockers (29.2% HRVD; range: 19.2% CVD to 65.4% ACS), and other evidence-based risk reduction therapies. Patients with >1 affected artery bed (11%) were older (age: 54.9, 57.4, 58.4 for 1, 2, 3 affected disease beds), had higher cardiovascular risk factors (for 1, 2, 3 affected disease beds, hypertension: 54.1%, 73.1%, 82.6%; hypercholesterolemia: 51.5%, 66.2%, 71.5%; diabetes: 43.9%, 63.7%, 82.4%), and used more cardiovascular-related medications (statins: 37.3%, 49.5%, 55.4%; antiplatelets: 14.7%, 30.0%, 41.7%; beta-blockers: 27.5%, 41.8%, 51.1%) compared to patients with only one affected disease bed (p<0.01). The average number of medications per patient was seven for HRVD patients, ranging from 5.7 for CVD patients to 13.3 for patients with ACS, CADD, CVD, and PAD (N=1,005). **CONCLUSIONS:** Classic cardiovascular risk factors are consistent and common in HRVD patients, but are undertreated in the US.

PCV130

COMPARISON OF ANTIMICROBIAL UTILIZATION IN CARDIAC ICU AND MEDICAL ICU OF A PRIVATE TERTIARY CARE HOSPITAL

Mothe R[1], Tiwari P[2], Malhotra S[3]
[1]*National Institute of Pharmaceutical Education and Reaserch, Mohali, India,* [2]*National Institute of Pharmaceutical Education and Research (NIPER), S.A.S. NAGAR, India,* [3]*Fortis Hospital, Mohali, Punjab, India*

OBJECTIVES: Irrational use of antibiotic, which adds to the cost of treatment, is known to lead to resistant microorganisms. Antimicrobial resistance substantially adds the already high costs of health care; and, it increases patient morbidity and mortality. Aim of the present study is to compare antimicrobial utilization in Cardiac Intensive Care Unit (CCU) and Medical Intensive Care Unit (MICU) of a private tertiary care hospital. **METHODS:** This study was carried out in CCU and MICU of a private tertiary care hospital. The data on antimicrobial utilization was collected prospectively from CCU and MICU. The antimicrobial utilization pattern was assessed using Rational Pharmaceutical Management (RPM) indicators. **RESULTS:** A total of 325 patients' data was analyzed in CCU and MICU (229 & 96, respectively). The average number of AMAs prescribed was found to be 1.8±0.06. The average number of AMAs prescribed in MICU (2.6±0.16) was higher than that prescribed in CCU (1.8±0.06). AMAs contributed to the extent of 14% and 21% of the total drugs prescribed in CCU and MICU, respectively. Cefuroxime, Ceftriaxone, Vancomycin, and Piperacillin+Tazobactum were the most commonly prescribed AMAs in CCU, while Penems, antifungals, Ceftriaxone, Piperacillin+Tazobactum and Metronidazole were the commonly prescribed AMAs in MICU. Of 586 AMAs prescribed in both the ICUs, 31.5% AMAs were prescribed from the National List of Essential Medicines 2011, India (NLEM-2011). 96/338 AMAs were prescribed in CCU and 89/248 in MICU from NLEM-2011. Only 4.3% of AMAs were prescribed by generic name. A total of 67% of parenteral AMAs were prescribed, of which 53% from CCU (338) and 85% from MICU (248). **CONCLUSIONS:** On the basis of RPM indicators computed in this study, there is a need to consolidate these early findings.